BS EN 15382:2013

BSI Standards Publication

Geosynthetic barriers — Characteristics required for use in transportation infrastructure

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National foreword

This British Standard is the UK implementation of EN 15382:2013. It supersedes BS EN 15382:2008 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/553, Geotextiles and geomembranes.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Geosynthetic barriers - Characteristics required for use in transportation infrastructure

Barrières géosynthétiques - Caractéristiques requises pour l'utilisation dans l'infrastructure des voies de transport

Geosynthetische Dichtungsbahnen - Eigenschaften, die für die Anwendung in Verkehrsbauten erforderlich sind

This European Standard was approved by CEN on 16 May 2013.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 15382:2013) has been prepared by Technical Committee CEN/TC 189 “Geosynthetics”, the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2014, and conflicting national standards shall be withdrawn at the latest by January 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15382:2008.

Annex C provides details of significant technical changes between this European Standard and the previous edition.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard allows manufacturers to describe geosynthetic barriers on the basis of declared values for characteristics relevant to the intended use and if tested to the specified method. It also includes procedures for evaluation of conformity and factory production control.

This European Standard may also be used by designers, end-users and other interested parties as a tool to define relevant and appropriate characteristics for specifications and on-site quality control. It should be emphasised however that not all characteristics and test methods quoted in this European Standard are suitable for the purpose of on-site quality control.

Tests for several non-mandated characteristics are still under study and will be included when the standard is revised.

The term “product” used in this standard refers to a geosynthetic barrier, including polymeric geosynthetic barriers, clay geosynthetic barriers and bituminous geosynthetic barriers.

This European Standard is part of a group of standards, addressing the requirements for geosynthetic barriers when used in a specific application.

Particular application cases may contain requirements about additional properties and – preferably standardised – test methods, if they are technically relevant and not conflicting with European Standards.

The design life of the product should be determined, since its function may be temporary, as a construction expediency, or permanent, for the lifetime of the structure.

1 Scope

This European Standard specifies the relevant characteristics of geosynthetic barriers (polymeric, clay and bituminous geosynthetic barriers), used as fluid barriers in infrastructure works, e.g. roads, railroads, runways of airports, and the appropriate test methods to determine these characteristics. Tunnels and underground structures are addressed in EN 13491.

The intended use of these products is to control the pathway of liquids through the construction and to limit any contamination, e.g. by de-icing products, of groundwater or water sources.

This European Standard is applicable to geosynthetic barriers, but not to geotextiles or geotextile-related products, as defined in EN ISO 10318.

This European Standard provides for the evaluation of conformity of the product to this European Standard.

This European Standard defines requirements to be met by manufacturers and their authorised representatives with regard to the presentation of product properties.

This European Standard does not cover applications where the geosynthetic barrier will be in contact with water that has been treated for human consumption. In these cases other relevant standards, requirements and/or regulations should be observed.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 495-5, *Flexible sheets for waterproofing — Determination of foldability at low temperature — Part 5: Plastic and rubber sheets for roof waterproofing*

EN 1109, *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flexibility at low temperature*

EN 1844, *Flexible sheets for waterproofing — Determination of resistance to ozone — Plastic and rubber sheets for roof waterproofing*

EN 1849-1, *Flexible sheets for waterproofing — Determination of thickness and mass per unit area — Part 1: Bitumen sheets for roof waterproofing*

EN 1849-2, *Flexible sheets for waterproofing — Determination of thickness and mass per unit area — Part 2: Plastic and rubber sheets*

EN 12224, *Geotextiles and geotextile-related products — Determination of the resistance to weathering*

EN 12225, *Geotextiles and geotextile-related products — Method for determining the microbiological resistance by a soil burial test*

EN 12310-1, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for waterproofing — Determination of resistance to tearing (nail shank)*

EN 12311-1, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for roof waterproofing — Determination of tensile properties*

EN 12311-2, *Flexible sheets for waterproofing — Determination of tensile properties — Part 2: Plastic and rubber sheets for roof waterproofing*

EN 13361, *Geosynthetic barriers — Characteristics required for use in the construction of reservoirs and dams*